

AMENDMENTS TO THE CLAIMS:

1. (Currently amended) A communication apparatus wherein a series of transmission data containing a first signal and a second signal different from said first signal is transmitted, said communication apparatus comprising:

a transmission power controller for separately controlling ~~at least one of~~ a transmission power of said first signal and ~~a transmission power of~~ said second signal, which are consecutively multiplexed in said series of transmission data in such a manner ~~that said transmission power of the first signal is made substantially coincident with said transmission power of the second signal, wherein said first signal includes a pilot signal;~~ and

a transmitter for transmitting said series of transmission data containing said first signal and said second signal in the transmission power controlled by said transmission power controller.

2. (Previously presented) A communication apparatus as claimed in claim 1, wherein:

said transmission power controller includes a multiplier for multiplying an amplitude of said first signal by a predetermined coefficient to thereby control the transmission power of said first signal.

3. (Canceled)

4. (Currently amended) A communication apparatus as claimed in claim 1, further comprising:

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interleave means for subdividing ~~said transmission~~ data into a plurality of data in a preselected data unit, and for rearranging a sequence of said subdivided data into said second signal.

5. (Currently amended) A communication apparatus as claimed in claim 1, ~~wherein:~~
wherein said first signal ~~further contains~~ comprises a transmission power control signal used to instruct transmission power of another communication apparatus under communication with said communication apparatus.

6. (Original) A spread multi-code communication apparatus for transmitting a plurality of transmission data by spreading said plurality of transmission data by employing different codes from each other, comprising:

a plurality of spreading units for spreading said plurality of transmission data by employing the different codes from each other to thereby output spread signals;

a synthesizing unit for synthesizing a plurality of spread signals outputted from the respective spreading units with each other to thereby output a synthesized signal;

a coefficient output unit for outputting a predetermined coefficient;

a multiplying unit for multiplying the synthesized signal outputted from said synthesizing unit by said predetermined coefficient; and

a transmitting unit for transmitting a signal outputted from said multiplying unit.

7. (Original) A spread multi-code communication apparatus as claimed in claim 6 wherein:

each of said plural transmission data contains a pilot signal and a data signal.

8. (Previously presented) A spread multi-code communication apparatus as claimed in claim 7 wherein:

said coefficient output unit outputs said predetermined coefficient at a predetermined timing, in which a value of said coefficient has been set in such a manner that a transmission power of said pilot signal is made substantially equal to a transmission power of said data signal.

9. (Original) A spread multi-code communication apparatus as claimed in claim 8 wherein:

said coefficient output unit outputs said coefficient to said multiplying unit when said pilot signal is outputted as said synthesized signal from said synthesizing unit.

10. (Original) A spread multi-code communication apparatus as claimed in claim 6 wherein:

at least one of said plural transmission data contains digital data for a data communication purpose, and at least one of said plural transmission data contains voice data for a voice communication purpose.

11. (Original) A spread multi-code communication apparatus as claimed in claim 6 wherein:

said plurality of transmission data are produced by subdividing a series of transmission data into plural transmission data.

12. (Previously presented) A Code Division Multiple Access (CDMA) communication apparatus in which, with respect to a plurality of transmission data, each having a data signal and a pilot signal, said pilot signal is spread by way of a first spreading code which is commonly used to the respective transmission data, said data signal is spread by way of second spreading codes which are different from each other as to the respective transmission data, and all of the spread transmission data are added to each other, whereby the added transmission data is transmitted, comprising:

a transmission power control unit for controlling a transmission power of said transmission data in such a manner that a transmission power of said pilot signal is made substantially equal to a transmission power of said data signal; and

a transmission unit for transmitting said transmission data by the transmission power controlled by said transmission power control unit.

13. (Original) A CDMA communication apparatus as claimed in claim 12 wherein:

said transmission power control unit includes an adjusting unit for adjusting at least one of said transmission power of said pilot signal and said transmission power of said data signal.

14. (Original) A CDMA communication apparatus as claimed in claim 13 wherein:

said adjusting unit attenuates the transmission power of said pilot signal so as to make the transmission power of said pilot signal substantially coincident with the transmission power of said data signal.

15. (Previously presented) A CDMA communication apparatus as claimed in claim 14 wherein:

said adjusting unit multiplies a value equal to the transmission power of said pilot signal by a predetermined coefficient so as to attenuate said transmission power of said pilot signal.

16. (Original) A CDMA communication apparatus as claimed in claim 15 wherein:

said adjusting unit sets a value of said coefficient in accordance with the number of said plural transmission data.

17. (Original) A CDMA communication apparatus as claimed in claim 16 wherein:

in the case that said plurality of transmission data are "N" pieces of transmission data in which the "N" indicates an integer, said adjusting unit sets the value of said coefficient value to $1/\sqrt{N}$.

18. (Original) A CDMA communication apparatus as claimed in claim 12 wherein:

a spreading code for spreading at least one data signal among said second

spreading codes is made coincident with said first spreading code for spreading the pilot signal.

19. (Currently amended) A communication method wherein a series of transmission data containing a first signal and a second signal is transmitted, said method comprising:

separately controlling at least one of a transmission power of said first signal and a transmission power of said second signal, which are consecutively multiplexed in said series of transmission data in such a manner that said transmission power of the first signal is made substantially coincident with said transmission power of the second signal, ~~one of said first signal and said second signal comprising a pilot signal;~~ and

transmitting said series of transmission data containing said first signal and said second signal in the controlled transmission power.

20. (Original) A communication method as claimed in claim 19 wherein:

an amplitude of said first signal is multiplied by a predetermined coefficient to thereby control the transmission power of said first signal.

21. (Previously presented) A spread multi-code communication method for transmitting a plurality of transmission data by spreading said plurality of transmission data by employing different codes from each other, said method comprising:

spreading said plurality of transmission data by employing the different codes from each other to thereby output spread signals;

synthesizing said plurality of spread signals with each other to thereby output a synthesized signal;

outputting a predetermined coefficient;

multiplying the synthesized signal by said predetermined coefficient; and

transmitting a signal outputted from said multiplying unit.

22. (Original) A spread multi-code communication method as claimed in claim 21 wherein:

each of said plural transmission data contains a pilot signal and a data signal.

23. (Previously presented) A spread multi-code communication method as claimed in claim 21 wherein:

a value of said coefficient is set in such a manner that a transmission power of said pilot signal is made substantially equal to a transmission power of said data signal.

24. (Original) A spread multi-code communication method as claimed in claim 23 wherein:

said synthesized signal is multiplied by said coefficient at a timing when said synthesized signal is equal to said pilot signal.

25. (Previously presented) A Code Division Multiple Access (CDMA) communication method in which, with respect to a plurality of transmission data, each having a data signal and a pilot signal, said pilot signal is spread by way of a first spreading code which

is commonly used to the respective transmission data, said data signal is spread by way of second spreading codes which are different from each other as to the respective transmission data, and all of the spread transmission data are added to each other, whereby the added transmission data is transmitted, said method comprising:

controlling a transmission power of said transmission data in such a manner that a transmission power of said pilot signal is made substantially equal to a transmission power of said data signal; and

transmitting said transmission data by a transmission power controlled by using a transmission power control unit.

26. (Original) A CDMA communication method as claimed in claim 25 wherein:

at least one of said transmission power of said pilot signal and said transmission power of said data signal is adjusted.

27. (Original) A CDMA communication method as claimed in claim 26 wherein:

the transmission power of said pilot signal is attenuated so as to make the transmission power of said pilot signal substantially coincident with the transmission power of said data signal.

28. (Original) A CDMA communication method as claimed in claim 27 wherein:

a value equal to the transmission power of said pilot signal is multiplied by a predetermined coefficient so as to attenuate said transmission power of this pilot signal.

29. (Original) A CDMA communication method as claimed in claim 28 wherein:

a value of said coefficient is set in accordance with the number of said plural transmission data.

30. (Original) A CDMA communication method as claimed in claim 29 wherein:

in the case that said plurality of transmission data are "N" pieces of transmission data in which the "N" indicates an integer, the value of said coefficient value to $1/\sqrt{N}$ is set.

31. (Canceled)

32. (Previously presented) The communication apparatus of claim 1, wherein said transmission power of said first signal is adjusted to be $1/\sqrt{N}$, where N denotes a number of plurality of transmission data currently being transmitted in said spreading code process.

33. (Currently amended) A communication apparatus wherein a series of transmission data containing a first signal and a second signal different from said first signal is transmitted in a spreading code transmission process, one of said first signal and said second signal comprising a pilot signal, said communication apparatus comprising:

a transmission power controller which separately controls ~~at least one of a first~~ power ~~setting~~ settings for said first signal and ~~a second power setting for~~ said second signal, which are consecutively multiplexed in said series of transmission data, to

selectively adjust a transmission power level of said pilot signal so that a transmission power of said ~~first signal is made~~ series of transmission data is kept substantially coincident constant with a transmission power of said ~~second signal~~.

34. (Currently amended) A communication apparatus wherein a series of transmission data containing a first signal and a second signal different from said first signal is transmitted in a spreading code transmission process, one of said first signal and said second signal comprising a pilot signal, said communication apparatus comprising:

means for separately controlling ~~at least one of a transmission power settings~~ of said first signal and ~~a transmission power of~~ said second signal, which are consecutively multiplexed in said series of transmission data, to selectively adjust a transmission power level of said pilot signal so that said transmission power of said ~~first signal is made~~ series of transmission data is kept substantially coincident ~~with said transmission power of said second signal~~ constant; and

means for transmitting said first signal and said second signal in accordance with said controlling means.

35. (New) A communication apparatus as claimed in claim 1, wherein said first signal comprises a pilot signal.

36. (New) A communication apparatus, comprising:

a spreading unit operable to spread a plurality of transmission data;

a control unit operable to reduce at least one of transmission power of the plurality of transmission data when the plurality of transmission data is spread by using a common spreading code; and

a transmission unit operable to transmit the plurality of transmission data.

37. (New) A communication apparatus as claimed in claim 36, wherein a total transmission power of the plurality of transmission data is substantially coincident with each other when:

the spreading unit spreads the plurality of transmission data by using the common spreading code; and

the spreading unit spreads the plurality of transmission data by using different codes, respectively.

38. (New) A communication apparatus as claimed in claim 36, further comprising:

an adder operable to synthesize the plurality of transmission data to produce a synthesized transmission data,

wherein the control unit reduces the transmission power of the plurality of transmission data in the synthesized transmission data and the transmission unit transmits the synthesized transmission data.

39. (New) A communication apparatus as claimed in claim 36, wherein the controller unit reduces the transmission power of the plurality of transmission data based on a number of the plurality of transmission data.

40. (New) A communication apparatus as claimed in claim 36, wherein a first signal and a second signal are consecutively multiplexed in each of the plurality of transmission data,

the spreading unit spreads the first signal in each of the plurality of transmission data by using the common spreading code and spreads the second signal in each of the plurality of transmission data by using different spreading codes than each other subsequently to the spreading of the first signal, and

the control unit reduces a transmission power of the first signal in each of the plurality of transmission data.

41. (New) A communication apparatus as claimed in claim 40, wherein the first signal comprises a pilot signal and the second signal comprises a data signal.

42. (New) A communication apparatus as claimed in claim 1, wherein said transmission power controller separately controls said transmission power of said first and said second signal in such a manner that transmission power of said series of transmission data is kept substantially constant.

43. (New) A communication method as claimed in claim 19, wherein said transmission power of said first and said second signal are controlled in such a manner that transmission power of said series of transmission data is kept substantially constant, in the step of controlling.